1. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \to -6^-} \frac{-4}{(x+6)^5} + 4$$

A. ∞

B. $f(-6)$

C. $-\infty$

D. The limit does not exist

E. None of the above

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2. Evaluate the limit below, if possible.

$$\lim_{x \to 9} \frac{\sqrt{6x-18}-6}{4x-36}$$

A. 0.083

B. 0.125

C. 0.612

D. ∞

E. None of the above

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3. Based on the information below, which of the following statements is always true?

As x approaches 8, $f(x)$ approaches 16.975.

A. $f(16) = 8$

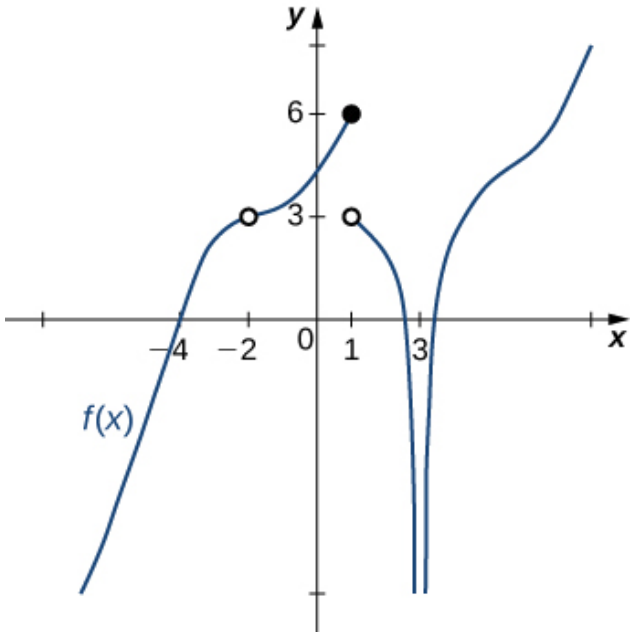
B. $f(8) = 16$

C. $f(16)$ is close to or exactly 8

D. $f(8)$ is close to or exactly 16

E. None of the above are always true.

4. For the graph below, find the value(s) a that makes the statement true: $\lim_{x \to a} f(x)$ does not exist.



A. -2

B. 3

C. 1

D. Multiple a make the statement true.

E. No a make the statement true.

5. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \to -7^+} \frac{-2}{(x-7)^9} + 8$$

A. ∞

B. $f(-7)$

C. $-\infty$

D. The limit does not exist

E. None of the above

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6. To estimate the one-sided limit of the function below as x approaches 10 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{10}{x} - 1}{x - 10}$$

A. $\{10.0000, 9.9000, 9.9900, 9.9990\}$

B. $\{9.9000, 9.9900, 9.9990, 9.9999\}$

C. $\{10.0000, 10.1000, 10.0100, 10.0010\}$

D. $\{9.9000, 9.9900, 10.0100, 10.1000\}$

E. $\{10.1000, 10.0100, 10.0010, 10.0001\}$

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7. Evaluate the limit below, if possible.

$$\lim_{x \to 5} \frac{\sqrt{9x - 29} - 4}{6x - 30}$$

A. ∞

B. 0.021

C. 0.188

D. 0.125

E. None of the above

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8. Based on the information below, which of the following statements is always true?

$$f(x) \textit{ approaches } 0.883 \textit{ as } x \textit{ approaches } 4.$$

A. $f(x)$ is close to or exactly 0.883 when x is close to 4

B. $f(x)$ is close to or exactly 4 when x is close to 0.883

C. $f(x) = 0.883$ when x is close to 4

D. $f(x) = 4$ when x is close to 0.883

E. None of the above are always true.

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9. To estimate the one-sided limit of the function below as x approaches 2 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{2}{x} - 1}{x - 2}$$

A. $\{1.9000, 1.9900, 1.9990, 1.9999\}$

B. $\{2.1000, 2.0100, 2.0010, 2.0001\}$

C. $\{2.0000, 1.9000, 1.9900, 1.9990\}$

D. $\{2.0000, 2.1000, 2.0100, 2.0010\}$

E. $\{1.9000, 1.9900, 2.0100, 2.1000\}$

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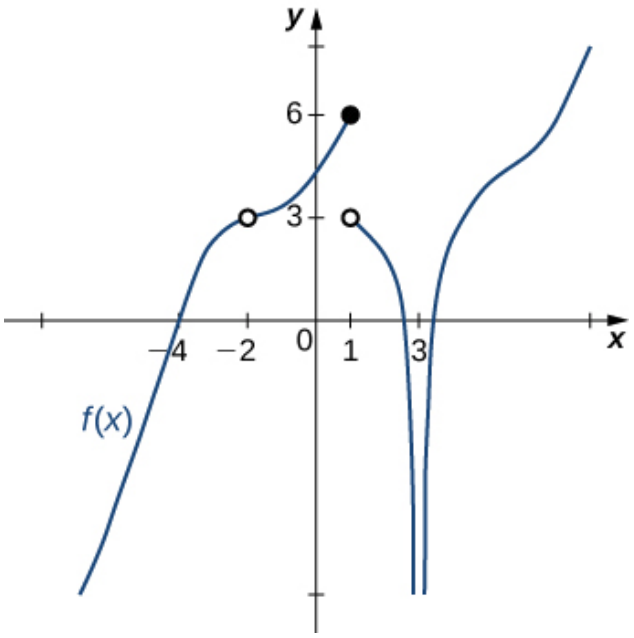
10. For the graph below, find the value(s) a that makes the statement true: $\lim_{x \to a} f(x)$ does not exist.



A. 1

B. -2

C. 3

D. Multiple a make the statement true.

E. No a make the statement true.
